

1645



1600

RAW SEQUENCE LISTING

PATENT APPLICATION: US/09/336,036

DATE: 01/16/2003

TIME: 12:21:58

Input Set : A:\Sequence Listing.txt

Output Set: N:\CRF4\01162003\I336036.raw

#24
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JAN 23 2003
TECH CENTER 1600/2900

3 <110> APPLICANT: Schlievert, Patrick M.
4 Ohlendorf, Douglas
5 Mitchell, David T.
6 Gahr, Pamala M.
8 <120> TITLE OF INVENTION: MUTANTS OF STREPTOCOCCAL TOXIN C AND METHODS OF USE
10 <130> FILE REFERENCE: 600.347US11
12 <140> CURRENT APPLICATION NUMBER: US 09/336,036
13 <141> CURRENT FILING DATE: 1999-06-18
15 <150> PRIOR APPLICATION NUMBER: US 09/308,829
16 <151> PRIOR FILING DATE: 1999-07-14
18 <150> PRIOR APPLICATION NUMBER: US 60/091,864
19 <151> PRIOR FILING DATE: 1998-07-06
21 <150> PRIOR APPLICATION NUMBER: PCT/US97/22125
22 <151> PRIOR FILING DATE: 1997-12-05
24 <150> PRIOR APPLICATION NUMBER: US 60/033,251
25 <151> PRIOR FILING DATE: 1996-12-06
27 <160> NUMBER OF SEQ ID NOS: 2
29 <170> SOFTWARE: PatentIn version 3.1
31 <210> SEQ ID NO: 1
32 <211> LENGTH: 936
33 <212> TYPE: DNA
34 <213> ORGANISM: Streptococcus pyogenes
36 <220> FEATURE:
37 <221> NAME/KEY: CDS
38 <222> LOCATION: (154)..(858)
39 <223> OTHER INFORMATION:

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43	caaccttgac tatttaaatg gaactgccac tcctaaaaac taaaatataa atacatttat	60
45	aaaatttcta aataaacaga aatctgattt ttaactactt actgctattt catgtattct	120
47	cgtacgagta atacatttaa ttaaggagaa aaa atg aaa aag att aac atc atc	174
48	Met Lys Lys Ile Asn Ile Ile	
49	1 5	
51	aaa ata gtt ttc ata att aca gtc ata ctg att tct act tat ttc acc	222
52	Lys Ile Val Phe Ile Ile Thr Val Ile Leu Ile Ser Thr Tyr Phe Thr	
53	10 15 20	
55	tat cat caa agt gac tct aag aaa gac att tcg aat gtt aaa agt gat	270
56	Tyr His Gln Ser Asp Ser Lys Lys Asp Ile Ser Asn Val Lys Ser Asp	
57	25 30 35	
59	tta ctt tat gca tac act ata act cct tat gat tat aaa gat tgc agg	318
60	Leu Leu Tyr Ala Tyr Thr Ile Thr Pro Tyr Asp Tyr Lys Asp Cys Arg	
61	40 45 50 55	
63	gta aat ttt tca acg aca cac aca tta aac att gat act caa aaa tat	366
64	Val Asn Phe Ser Thr Thr His Thr Leu Asn Ile Asp Thr Gln Lys Tyr	

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65          60          65          70
67 aga ggg aaa gac tat tat att agt tcc gaa atg tct tat gag gcc tct 414
68 Arg Gly Lys Asp Tyr Tyr Ile Ser Ser Glu Met Ser Tyr Glu Ala Ser
69          75          80          85
71 caa aaa ttt aaa cga gat gat cat gta gat gtt ttt gga tta ttt tat 462
72 Gln Lys Phe Lys Arg Asp Asp His Val Asp Val Phe Gly Leu Phe Tyr
73          90          95          100
75 att ctt aat tct cac acc ggt gag tac atc tat gga gga att acg cct 510
76 Ile Leu Asn Ser His Thr Gly Glu Tyr Ile Tyr Gly Gly Ile Thr Pro
77          105          110          115
79 gct caa aat aat aaa gta aat cat aaa tta ttg gga aat cta ttt att 558
80 Ala Gln Asn Asn Lys Val Asn His Lys Leu Leu Gly Asn Leu Phe Ile
81 120          125          130          135
83 tcg gga gaa tct caa cag aac tta aat aac aag att att cta gaa aag 606
84 Ser Gly Glu Ser Gln Gln Asn Leu Asn Asn Lys Ile Ile Leu Glu Lys
85          140          145          150
87 gat atc gta act ttc cag gaa att gac ttt aaa atc aga aaa tac ctt 654
88 Asp Ile Val Thr Phe Gln Glu Ile Asp Phe Lys Ile Arg Lys Tyr Leu
89          155          160          165
91 atg gat aat tat aaa att tat gac gct act tct cct tat gta agc ggc 702
92 Met Asp Asn Tyr Lys Ile Tyr Asp Ala Thr Ser Pro Tyr Val Ser Gly
93          170          175          180
95 aga atc gaa att ggc aca aaa gat ggg aaa cat gag caa ata gac tta 750
96 Arg Ile Glu Ile Gly Thr Lys Asp Gly Lys His Glu Gln Ile Asp Leu
97          185          190          195
99 ttt gac tca cca aat gaa ggg act aga tca gat att ttt gca aaa tat 798
100 Phe Asp Ser Pro Asn Glu Gly Thr Arg Ser Asp Ile Phe Ala Lys Tyr
101 200          205          210          215
103 aaa gat aat aga att atc aat atg aag aac ttt agt cat ttc gat att 846
104 Lys Asp Asn Arg Ile Ile Asn Met Lys Asn Phe Ser His Phe Asp Ile
105          220          225          230
107 tat ctt gaa aaa taattcatca tacacaaaaa accgcccaga ataattctgag 898
108 Tyr Leu Glu Lys
109          235
111 cggttttgtc ttatctcgga gctttacctc ctaattta 936
114 <210> SEQ ID NO: 2
115 <211> LENGTH: 235
116 <212> TYPE: PRT
117 <213> ORGANISM: Streptococcus pyogenes
119 <400> SEQUENCE: 2
121 Met Lys Lys Ile Asn Ile Ile Lys Ile Val Phe Ile Ile Thr Val Ile
122 1          5          10          15
125 Leu Ile Ser Thr Tyr Phe Thr Tyr His Gln Ser Asp Ser Lys Lys Asp
126          20          25          30
129 Ile Ser Asn Val Lys Ser Asp Leu Leu Tyr Ala Tyr Thr Ile Thr Pro
130          35          40          45
133 Tyr Asp Tyr Lys Asp Cys Arg Val Asn Phe Ser Thr Thr His Thr Leu
134          50          55          60
137 Asn Ile Asp Thr Gln Lys Tyr Arg Gly Lys Asp Tyr Tyr Ile Ser Ser

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```

138 65          70          75          80
141 Glu Met Ser Tyr Glu Ala Ser Gln Lys Phe Lys Arg Asp Asp His Val
142          85          90          95
145 Asp Val Phe Gly Leu Phe Tyr Ile Leu Asn Ser His Thr Gly Glu Tyr
146          100          105          110
149 Ile Tyr Gly Gly Ile Thr Pro Ala Gln Asn Asn Lys Val Asn His Lys
150          115          120          125
153 Leu Leu Gly Asn Leu Phe Ile Ser Gly Glu Ser Gln Gln Asn Leu Asn
154          130          135          140
157 Asn Lys Ile Ile Leu Glu Lys Asp Ile Val Thr Phe Gln Glu Ile Asp
158 145          150          155          160
161 Phe Lys Ile Arg Lys Tyr Leu Met Asp Asn Tyr Lys Ile Tyr Asp Ala
162          165          170          175
165 Thr Ser Pro Tyr Val Ser Gly Arg Ile Glu Ile Gly Thr Lys Asp Gly
166          180          185          190
169 Lys His Glu Gln Ile Asp Leu Phe Asp Ser Pro Asn Glu Gly Thr Arg
170          195          200          205
173 Ser Asp Ile Phe Ala Lys Tyr Lys Asp Asn Arg Ile Ile Asn Met Lys
174          210          215          220
177 Asn Phe Ser His Phe Asp Ile Tyr Leu Glu Lys
178 225          230          235

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VERIFICATION SUMMARY

PATENT APPLICATION: **US/09/336,036**

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Input Set : **A:\Sequence Listing.txt**

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